DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-011739 Address: 333 Burma Road **Date Inspected:** 12-Jan-2010

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: See Below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG** and Tower

Summary of Items Observed: CWI Inspector: Mr. Liu Fe Wen

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG BAY 5

At around 1930 hours this QA Inspector observed ZPMC workers were performing heat straightening of Traveler Rail 11TR1-032 and ZPMC personnel have placed a five ton weight on this Traveler Rail as the heat is being applied. This QA Inspector did not observe any ZPMC QC personnel in OBG Bay 5 as this heat straightening was taking place. A review of ZPMC heat straightening record reveals this document is written using only the Chinese language and there is no Caltrans Engineering stamp on this document. This QA Inspector observed Traveler Rail 11TR1-032 is sitting on a raised work platform and is supported near each end of the Traveler Rail. The Traveler Rail has a bow of approximately 105 mm as measured near the center of the Traveler Rail. Note: this measurement was taken after ZPMC applied an unknown amount of heat with a 5 ton weight bearing down on top of Traveler Rail 11TR1-032. ZPMC CWI Mr. Liu Fe Wen informed this QA Inspector that he has a HSR document that allows a weight to be applied. This QA Inspector informed ZPMC CWI Mr. Liu Fe Wen that no Caltrans Engineer has approved this heat straightening document and an incident report is going to be issued to document this violation. See the photographs below for additional information

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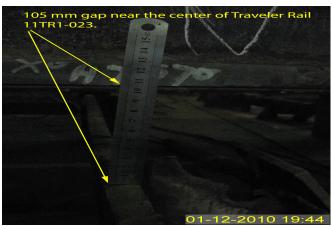
Tower Bay 11

ZPMC issued "Inspection Notification Sheet" number 5049 informing QA that ZPMC has completed ultrasonic inspections of East tower lift 4 corner plate butt welds. This QA Inspector performed random visual and ultrasonic inspections of the following welds: ESTL4-2D/L-3, ESTL4-2D/L-4, ESTL4-2D/L-5, ESTL4-2D/L-6, ESTL4-2D/L-11, ESTL4-2D/L-13, ESTL4-2D/L-14, ESTL4-2D/L-31, ESTL4-2D/L-33, ESTL4-2D/L-34, ESTL4-2D/L-35, ESTL4-, 2D/L-41, ESTL4-2D/L 1-42 and ESTL4-2D/L-61. This QA Inspector performed ultrasonic inspections of approximately 50 percent length of each of these welds. Items observed by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on these inspections see the TL6027 Ultrasonic Test Report.









Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372, who represents the Office of Structural Materials for your project.

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Inspected By: Dawson,Paul Quality Assurance Inspector **Reviewed By:** Carreon, Albert QA Reviewer